



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,831	01/13/2004	Andrew Fitzhugh	200313516-1	5514

22879 7590 09/21/2006

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

BODDIE, WILLIAM

ART UNIT PAPER NUMBER

2629

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/757,831

Applicant(s)

FITZHUGH ET AL.

Examiner

William Boddie

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 8 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                   |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/24/005</u> . | 6) <input type="checkbox"/> Other: ____.                                               |

## DETAILED ACTION

### *Claim Objections*

1. Claims 8 and 21 are objected to because of the following informalities: the phrasing “to obtain the current time through when the determination indicates” is awkward. Perhaps replacing “through when” with –until—would offer a less awkward phrase, yet maintain the general idea that was attempted. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7-8, 14-17, 20-21 and 27-29 rejected under 35 U.S.C. 102(b) as being anticipated by Tonomura (JP 2001-197342).

**With respect to claim 1**, Tonomura discloses, a method of synchronizing a clock in an electronic device having image capture capabilities (fig. 4), comprising:

receiving an image of a time keeping device from the electronic device with image capture capabilities (S2-S3 in fig. 4);

determining a current time using image analysis operations on the image of the time keeping device (S6, S9 in fig. 4); and

setting the current time on a clock associated with the electronic device with image capture capabilities (S17 in fig. 4; also note paras. 12-19).

**With respect to claim 2**, Tonomura discloses, the method of claim 1 (see above), wherein the time keeping device is selected from a set of time keeping devices including: a wall clock, a wristwatch and a drawing of a clock (para. 6; also note the image of the time keeping device in fig. 6).

**With respect to claim 3**, Tonomura discloses, the method of claim 2 (see above), wherein the time keeping device displays time in a format selected from a set of formats including: an analog clock format, a digital clock format and a combination of analog and digital clock formats (para. 21).

**With respect to claim 4**, Tonomura discloses, the method of claim 1 (see above), wherein the image capture capabilities are derived from a camera integrated into the electronic device (6 in fig. 2; end of para. 10).

**With respect to claim 7**, Tonomura discloses, the method of claim 1 (see above) wherein the image capture capabilities are not utilized and the image of the time keeping device is generated synthetically from existing time, day and data information (paras. 10, 18 and 32; also note the displays in fig. 7).

**With respect to claim 8**, Tonomura discloses, the method of claim 1 (see above), wherein determined a current time using image analysis includes:

determining if the time keeping device in the image displays time using either an analog clock format or a digital clock format (S61 in fig. 5; para. 21);

performing optical character recognition to obtain the current time through when the determination indicates the displayed time is compatible with the digital clock format (para. 31; S66 in fig. 5); and

identifying hand and dial positions in the image to obtain the current time when the determination indicates the time is displayed using the analog clock format (para. 22; S62 in fig. 5).

**With respect to claim 14,** Tonomura discloses, an apparatus for synchronizing a clock in an electronic device having image capture capabilities (fig. 1), comprising:

a processor capable of executing instructions (8 in fig. 3);

a memory (9 in fig. 3) containing instructions when executed cause the processor to receive an image of a time keeping device from the electronic device with image capture capabilities (para. 12), determine a current time using image analysis operations on the image of the time keeping device and set the current time on a clock associated with the electronic device with image capture capabilities (para. 22 for example).

**With respect to claim 27,** Tonomura discloses, an apparatus for synchronizing a clock in an electronic device having image capture capabilities, comprising:

means for receiving an image of a time keeping device from the electronic device with image capture capabilities (6 in fig. 2);

means for determining a current time using image analysis operations on the image of the time keeping device (paras. 10 and 22, for example); and

means for setting the current time on a clock associated with the electronic device with image capture capabilities (paras. 40-41, for example).

Art Unit: 2629

**With respect to claim 28**, Tonomura discloses, the method of claim 1 (see above), wherein the current time is set at a later point in time using a time stamp associated with the image of the time keeping device (paras. 16, 18).

**With respect to claims 15-17, 20-21 and 29**, as claims 15-17, 20-21 and 29 are merely apparatus versions of the previously rejected claims 2-4, 7-8 and 28, these claims are rejected on the same merits as shown above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-6 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonomura (JP 2001-197342) in view of Lemelson (US 4,204,398).

**With respect to claim 5**, Tonomura discloses, the method of claim 1 (see above).

Tonomura does not expressly disclose that the camera is remotely connected to the electronic device over a network.

Lemelson discloses, transmitting determined time signals, from a remote device (10 in fig. 1) to an electronic device (14 in fig. 1), over a network.

Lemelson and Tonomura are analogous art because they are both from the same field of endeavor namely, image capture and recognition of a corrected time.

At the time of the invention it would have been obvious to one of ordinary skill in the art to locate the image capture means of Tonomura remotely from the electronic device. The image capture means and electronic device to be connected by a network, as taught by Lemelson.

The motivation for doing so would have been to decrease the complexity of each individual device of Tonomura.

Therefore it would have been obvious to combine Tonomura with Lemelson for the benefit of a more simplified design to obtain the invention as specified in claim 5.

**With respect to claim 6**, Tonomura and Lemelson disclose, the method of claim 5 (see above).

Lemelson further discloses, wherein the remote connection between the camera and the electronic device is selected from a set of connections including: a wireless connection (wireless transmitter / receiver; 13, 15 in fig. 1).

**With respect to claims 18-19**, as claims 18-19 are merely apparatus versions of the previously rejected claims 5-6, these claims are rejected on the same merits as shown above.

6. Claims 9-13 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonomura (JP 2001-197342) in view of Reda et al. (US 6,473,524).

**With respect to claim 9**, Tonomura discloses, the method of claim 8 (see above), performing optical character recognition to obtain the current time (para. 31); and dividing a digital portion of the image into numeric segment values (para. 39, for example).

Tonomura does not expressly disclose, segmenting the image or dealing with fonts to determine the current time.

Reda discloses, an optical character recognition method that includes:  
dividing a digital portion of an image into numeric segment values (figs. 4-6 for example);  
selecting a font corresponding to the numeric segment values (col. 2, lines 51-58);  
comparing each of the numeric segment values with a filter corresponding to the potentially different numeric segment values (col. 6, lines 26-34); and  
interpreting the numeric segment values to determine the numeric segment value in response to the comparison (col. 2, lines 51-58).

Tonomura and Reda are analogous art because they are both from the same field of endeavor namely, effective numerical OCR analysis of images.

At the time of the invention it would have been obvious to one of ordinary skill in the art to perform the optical character recognition, as taught by Reda, in the device of Tonomura.

The motivation for doing so would have been to enjoy a higher accuracy and more robust numerical recognition (Reda; col. 2, lines 59-60).

Therefore it would have been obvious to one of ordinary skill in the art to combine Reda with Tonomura for the benefit of higher accuracy to obtain the invention as specified in claim 9.



**With respect to claim 10**, Tonomura and Reda disclose, the method of claim 9 (see above).

Reda further discloses, wherein the font is selected from a ranked sequence of fonts typically used (col. 2, lines 51-58; col. 6, lines 13-34) to display time in time keeping devices.

**With respect to claim 11**, Reda and Tonomura disclose, the method of claim 9 (see above).

Tonomura further discloses, wherein the dividing further includes selecting one or more timing indicators selected from a set including: a month indicator specifying the current month (for example; para. 39).

**With respect to claim 12**, Reda and Tonomura disclose, the method of claim 9 (see above).

Tonomura further discloses, wherein identifying hand and dial positions in the image to obtain the current time further includes:

- identifying a relative position of hands in the image to each other (para. 22);
- determining an orientation of a dial on the time keeping device (para. 22, discloses the basis off of 12:00 inherently requiring orientation determination);
- correlating the relative position of hands to the orientation of the dial on the time keeping device (para. 22);
- obtaining the current time based upon the position of the hands and the orientation of the dial on the time keeping device (also note para. 10).

**With respect to claim 13**, Tonomura and Reda disclose, the method of claim 12 (see above).

Tonomura further discloses, wherein correlating the relative position of hands to the orientation of the dial uses a lookup table with angles of the hands and positions relative to the dial on the time keeping device (para. 10, discloses the use of angle measurements to determine the time).

**With respect to claims 22-26**, as claims 22-26 are merely apparatus versions of the previously rejected claims 9-13, these claims are rejected on the same merits as shown above.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kotani et al. (US 4,797,748) discloses a fax machine with time recognition means. Miyamoto et al. (JP 11/326,563) discloses an image recognition process for determining the time from an image of a time keeping device.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wlb  
9/6/06

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", written over a horizontal line.